REMARKS

Claims 1-16 are pending in this application. By this Amendment, Claim 5 has been amended. No new matter has been added.

The specification has been amended in a manner as requested by the Examiner.

The Examiner has rejected Claims 5 and 6 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner alleges that the diisocyanate species, diphenylmethane diisocyanate, is not properly represented by the abbreviation, H(12)MDI, because diphenylmethane diisocyanate is an aromatic compound, whereas H(12)MDI is a cycloaliphatic compound. Although not necessarily agreeing with the Examiner, e.g., applicants are allowed to be their own lexicographer, Claim 5 has been amended to delete the recitation "(H(12)MDI)". Accordingly, withdrawal of the rejection under the second paragraph of 35 U.S.C. §112 is respectfully requested.

The Examiner has maintained the rejection of Claims 1-16 under 35 U.S.C. §103(a) as being obvious over Okazaki et al. U.S. Patent No. 3,899,623 ("Okazaki") or Koyama et al. U.S. Patent No. 5,436,399 ("Koyama") in view of Gajewski U.S. Patent No. 5,895,689 ("Gajewski '689") or Gajewski U.S. Patent No. 5,895,806 ("Gajewski '806") or Kulp et al. U.S. Patent No. 6,114,488 ("Kulp") or Ruprecht et al., "Roll Covering by Rotational Casting with Fast-Reacting PUR Systems", Polyurethanes World Congress 1991 (Sep. 24-26) pp. 478-481 ("Ruprecht").

As pointed out by the Examiner, nowhere does Okazaki or Koyama disclose or suggest a method for coating a flexible substrate employing the step of "rotationally casting to the substrate a coating comprising a polyurethane composition formed from (a) a linear isocyanate-terminated polyurethane prepolymer; and, (b) a curative agent containing a diol having a

molecular weight of less than about 250 wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer" as presently recited in Claim 1.

Rather, both Okazaki and Koyama disclose coating an impregnated sheet or other fibrous material using a polyurethane coating composition formed from a substantially linear isocyanate-terminated prepolymer and a diol chain extender, e.g., 1,4-butane diol. However, there is no disclosure or suggestion of any coating method in both Okazaki and Koyama.

Gajewski '689, Gajewski '806, Kulp and Ruprecht each fail to cure the deficiencies of Okazaki and Koyama. Specifically, Gajewski '689, Gajewski '806, Kulp and Ruprecht likewise fail to disclose or suggest a method for coating a flexible substrate employing the step of rotationally casting to the flexible substrate a polyurethane coating composition formed from (a) a linear isocyanate terminated polyurethane prepolymer and (b) a curative agent containing a diol having a molecular weight of less than about 250 wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer to provide coated flexible substrates having high flex fatigue properties.

Rather, Gajewski '689 and Gajewski '806 disclose a rotational casting method for coating cylindrical objects employing a polyurethane composition obtained from an isocyanate-terminated polyurethane prepolymer and a curative mixture containing a polyol curative agent, e.g., polytetramethylene ether glycol, a diol having a high molecular weight such as 650 (see Example 2) and a blend of thixotropic agents. Kulp likewise discloses a rotational casting method for coating cylindrical objects useful as rollers and wheels employing a polyurethane elastomer composition formed from an isocyanate-terminated polyurethane prepolymer and amine curative agent containing an aminobenzoate functionalized polyol having a weight

average molecular weight of 200 to 3,000. Ruprecht also likewise discloses a rotational casting method for cylindrical objects, e.g., roll coverings, using a fast-reacting polyurethane elastomer formed from an isocyanate-terminated polyurethane prepolymer and a curative mixtures containing long-chained polyether polyols and short-chained extenders.

At no point however is there any suggestion, motivation or even a hint in any of the secondary references of coating a flexible substrate by rotationally casting a polyurethane composition formed from a linear isocyanate-terminated polyurethane prepolymer and a curative agent containing a diol having a molecular weight less than about 250 wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer to impart improved flex fatigue properties. Thus, nothing in any of the secondary references would lead one skilled in the art to modify Okazaki or Koyama by looking to the disclosures of Gajewski '689, Gajewski '806, Kulp and Ruprecht and arrive at the presently claimed method for coating a flexible substrate with any expectation of success.

In order to meet his burden of a *prima facie* obviousness rejection, the Examiner alleges that it would have been obvious to select a rotational casting process from the known field of polyurethane casting techniques, so as to arrive at the claimed method. This wholly unsupported allegation cannot possibly serve as a basis for this rejection. It is well established that "obvious to try" has long been held not to constitute obviousness. *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988). One skilled in the art of polyurethanes would readily understand that there are many different casting techniques, e.g., hand casting, hot casting, machine dispensing, rotational casting, spraying. etc., and many different polyurethane systems for a variety applications. Accordingly, one skilled in the art of polyurethanes would not readily know what result could be obtained based on the casting technique for a polyurethane system

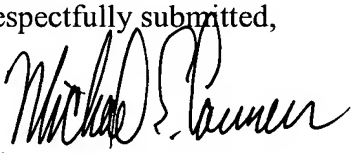
and the resulting application. As pointed out by the Examiner, Okazaki and Koyama are completely silent as to the casting technique for applying the polyurethane composition onto a flexible substrate. Moreover, Gajewski '689, Gajewski '806, Kulp and Ruprecht have no appreciation that rotationally casting to a flexible substrate the specifically recited polyurethane coating composition formed from (a) a linear isocyanate terminated polyurethane prepolymer and (b) a curative agent containing a diol having a molecular weight of less than about 250 wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer will provide a coated flexible substrate having high flex fatigue properties. As such, nothing in Gajewski '689, Gajewski '806, Kulp and Ruprecht would lead one skilled in the art to modify the disclosures of Okazaki or Koyama by looking to Gajewski '689, Gajewski '806, Kulp and Ruprecht and arrive at the claimed method with any expectation of success. Only using hindsight and Applicants' specification as a guide is there any such basis for alleging that the combination of Okazaki or Koyama with Gajewski '689, Gajewski '806, Kulp or Ruprecht provides any relevant teachings with respect to the claimed method for coating a flexible substrate.

For the foregoing reasons, since Okazaki or Koyama, alone or in combination with Gajewski '689, Gajewski '806, Kulp or Ruprecht, do not disclose or suggest a method for coating a flexible substrate employing the step of rotationally casting to the flexible substrate a polyurethane coating composition formed from (a) a linear isocyanate terminated polyurethane prepolymer and (b) a curative agent containing a diol having a molecular weight of less than about 250 wherein the polyurethane composition is formed in the absence of a non-linear isocyanate-terminated polyurethane prepolymer " as presently recited in amended Claim 1, amended Claims 1-16 are believed to be nonobvious, and therefore patentable, over Okazaki,

Koyama, Gajewski '689, Gajewski '806, Kulp and Ruprecht, no matter how these references are considered or combined.

For the foregoing reasons, it is submitted that amended Claims 1-16 as presented herein are in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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